



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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NOTICE OF ACCEPTANCE (NOA)

ES Products, Inc.
P.O. Box 810
Bristol, R.I. 02809

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: ES Products, Inc. Roofing Fasteners

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA# 12-0619.08 and consists of pages 1 through 12.
The submitted documentation was reviewed by Alex Tigera.

Alex Tigera 11/4/14



NOA No 13-1106.02
Expiration Date: 04/17/18
Approval Date: 04/24/14
Page 1 of 12

ROOFING COMPONENT APPROVAL

Category: Roofing
Sub-Category: Roofing Fastener
Material: Steel

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

FASTENERS:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
FM-245 and FM -245V	1.2" wide x 2.4" long x 1.226" tall	TAS 114 TAS 117	One piece base ply fasteners with a pair of dual gripping shanks, are formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) on the fastener is coated on both sides with a black urethane coating. For use in NVS concrete and various poured gypsum decks. FM-245V includes a V-shaped notch on the bottom of the shanks (stems).
FM-260 and FM-260 V	1.2" wide x 2.4" long x 1.729" tall	TAS 114 TAS 117	One piece base ply fasteners with a pair of dual gripping shanks, are formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) of the fastener is coated on both sides with a black urethane coating. For use in lightweight insulating concrete and various poured gypsum decks. FM-260V includes a V-shaped notch on the bottom of the shanks (stems).
FM-275 and FM-275V	2.46" wide x 3.59" long x 1.16" tall	TAS 114 TAS 117	Two piece factory preassembled base ply fastener/plate with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) of the fastener is coated on both sides with a black urethane coating. For use in NVS concrete and various poured gypsum decks. FM-275V includes a V-shaped notch on the bottom of the shanks (stems).

FASTENERS:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
FM-290 and FM-290V	2.46" wide x 3.59" long x 1.665" tall	TAS 114 TAS 117	Two piece factory preassembled base ply fastener/plate unit with a pair of dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) of the fastener is coated on both sides with a black urethane coating. For use in lightweight insulating concrete decks and various poured gypsum decks. FM-290V includes a V-shaped notch on the bottom of the shanks (stems).
FM-75 and FM-75V	2.7" head x 1.2" long	TAS 114 TAS 117	Two piece factory preassembled base ply fastener/plate unit with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) of the fastener is coated on both sides with a black urethane coating. For use in NVS concrete and various poured gypsum decks. FM-75V includes a V-shaped notch on the bottom of the shanks (stems).
FM-90 and FM-90V	2.7" head x 1.7" long	TAS 114 TAS 117	Two piece factory preassembled base ply fastener/plate unit with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. Only the cap (head) of the fastener is coated on both sides with a black urethane coating. For use in lightweight insulating concrete decks and various poured gypsum decks. FM-90V includes a V-shaped notch on the bottom of the shanks (stems).
Insuldeck Loc-Nail Assembled Base Ply Fastener	2.7" head x 1-7/8" long	TAS 114 TAS 117	Two piece factory preassembled fastener/plate unit for use in cementitious wood fiber decks. Fastener formed from .024" thick AZ-55 hot dipped Galvalume steel. A 2.7" diameter disk formed from .013" AZ-55 Galvalume steel is factory.

FASTENERS:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Twin Loc-Nail	2.7" head x 1.4" long, 2.7" head x 1.8" long, 2.7" head x 2.8" long, 2.7" head x 3.8" long, 2.7" head x 4.8" long	TAS 114 TAS 117	Three piece factory preassembled fastener/plate unit. Tube formed from .030" thick G-90 hot dipped galvanized steel. A 2.7" diameter disk formed from .018" AZ-55 Galvalume steel is factory assembled to each fastener. Locking staple formed from .080" coated steel is factory assembled into tube. For base ply attachment to new or existing cementitious wood fiber, poured gypsum and lightweight insulating concrete decks.
Twin Loc-Nail (no plate)	1.4" long, 1.8" long, 2.8" long, 3.8" long, 4.8" long	TAS 114 TAS 117	Two piece factory assembled fastener. Tube formed from .030" thick G-90 hot dipped galvanized steel. Locking staple formed from .080" coated steel is factory assembled into tube. For base ply attachment to new or existing cementitious wood fiber, poured gypsum and lightweight insulating concrete decks. Used with straight line batten bar.
Do-All Loc-Nail	.435" head x 1.4" long .435" head x 1.75" long		One-piece stainless steel fasteners for shingle attachment to gypsum board, gypsum plank, plywood, wood, and composite decks.
Tin Tag	1.625" round stress plate with or without .235" diameter central hole		Steel bearing stress plate, coated with AZ-55 Galvalume or G-90 galvanized for use with roofing nails or Do-All Loc-Nails (w/.235" central hole) to attach underlayment or base sheet.
Straight Line Batten Bar	1" wide x 0.040" thick x 100' long Galvalume (comes with barbs or no barbs surrounding the hole).	TAS 114 TAS 117	Batten Bar for mechanical attachment of membrane.
Low Pro Batten Bar	1" wide x .040" thick x 100' long Galvalume (comes with barbs or no barbs surrounding the hole)	TAS 114 TAS 117	Batten Bar for the mechanical attachment of membrane.
Deep Well Batten Bar	1" wide x .040" thick x 100' long Galvalume (comes with barbs or no barbs surrounding the hole)	TAS 114 TAS 117	Batten Bar for the mechanical attachment of membrane.
Seam Plate	2" round Galvalume stress plate		Preliminary attachment only, not to be used in wind load calculations.

MANUFACTURING LOCATION:

1. Bristol, R.I.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Trinity ERD	Withdrawal Performance		
	TAS 117(A) & (B)	#EO8950.04.08	04/17/08
	TAS 117 (A & B)	E41800.10.12	10/18/12
Factory Mutual Research Corporation	Wind Uplift	J.I. 0R0Q1.AM	03/22/91
	Wind Uplift	J.I. 1V1A9.AM	07/12/91
	Standard 4470	J.I. 0V8A3.AM	11/13/91
	Standard 4470	J.I. 1V9A8.AM	02/25/92
	Wind Uplift	J.I. 0W2A0.AM	03/19/92
	Wind Uplift	J.I. 1W5A2.AM	10/05/92
	Wind Uplift	J.I. 0W4A1.AM	01/04/93
	Corrosion Resistance	J.I. 0W4A1.AM	01/07/93
	Testing of Loc-Nails		
	Standard 4470	J.I. 3W3A5.AM	01/27/94
	Corrosion Resistance	3031797	05/19/08
Trinity Engineering, Inc.	Dynamic Pull Through		
	TAS 117(B)	#4670.10.95-1	10/01/95
Exterior Research & Design, LLC.	TAS 117(A), (B) & (C)	#4670.07.97-1	07/20/97
PRI Construction	TAS 114	ESP-001-02-01	01/23/12
Materials Technologies			02/20/12

TYPICAL PROPERTIES:

Note: A 2 to 1 margin of safety has been applied to test results producing the design values noted herein.

Withdrawal Resistance Performance - TAS 117(A) - Static Load			
<u>Fastener</u>	<u>Deck Type</u>	<u>Static Withdrawal Resistance (lbf)</u>	
FM-245 series & FM-275 series	Poured gypsum	30.0	
FM-260 series & FM-290 series	Min. 200 psi cellular Lightweight concrete	3 day cure 44.0	28 day cure 82.0
FM-75 series	Poured gypsum	30.0	
FM-90 series	Min. 200 psi cellular Lightweight concrete	3 day cure 32.1	28 day cure 53.5
	Min. 200 psi aggregate lightweight concrete	3 day cure 39.9	28 day cure 77.3
Insuldeck Loc-Nail	Cementitious wood fiber	31.8	
Twin Loc-Nail	Poured gypsum	<u>131.35</u>	
Twin Loc-Nail	Cementitious wood fiber	176.2	

Withdrawal Resistance Performance - TAS 117(A) - Pulsating Load		
<u>Fastener</u>	<u>Deck Type</u>	<u>Static Withdrawal Resistance (lbf)</u>
FM-245 series & FM-275 series	Poured gypsum	25.8
FM-260 series & FM-290 series	Min. 200 psi cellular lightweight concrete	28 day cure - 65
FM-75 series	Poured gypsum	25.8
FM-90 series	Min. 200 psi cellular lightweight concrete	28 day cure – 42.9
	Min. 200 psi aggregate lightweight concrete	28 day cure – 66.3
Insuldeck Loc-Nail	Cementitious wood fiber	20.8
Twin Loc-Nail	Poured gypsum	<u>98</u>
Twin Loc-Nail	Cementitious wood fiber	105.0

**Base Sheet Rupture Performance, TAS 117(B):
2.5" x 3.6" Plate - FM-275 or FM-290**

<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbf)</u>	<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbf)</u>
Certainteed	Glassbase	128	Polyglass	Elastobase V	156
	Flex-I-Glas Base	134		PolyProtector UDL	97
	PolySMS Base	186		Elastobase V (poly surface)	88
	Flintlastic SA Nailbase	78	PRS	Derbi Base	130
Firestone	SBS Base Sheet	163	Siplast	Parabase	147
	APP 160	182	Soprema	Modified Sopra G	127
	SBS Glass Torch Base	128		Soprabase	117
	SBS Poly Torch Base	173	Tamko	Glass-Base	133
GAF	GAFLAS #75	131		Vapor Chan	136
	GAFLAS Stratavent Eliminator	131	Tarco	Easy Base	93
	GAFLAS #80 Ultima	99	Tremco	BURMastic Glass Ply	142
	Liberty MA Base	82		Vapor Chan	231
Garland	HPR Glas Base	140	US Ply	USP Base	144
	HPR Tri Base Plus	226		Duraflex 30 SBS Base	132
Johns Manville	Permaply #28	137		USP NVB	140
	Ventsulation	124	WP Hickman	Multi-Ply Glass	146
	Dynabase	153		Multi-Ply Glass CL	212
				Performance Ply	191
				Pika Ply HI-TEC 60	230

**Base Sheet Rupture Performance, TAS 117(B):
2.7" FM-30 Plate (FM-75 or FM-90) or Insuldeck Loc-Nail**

Manuf.	Base Sheet	Rupture Value (lbf)	Manuf.	Base Sheet	Rupture Value (lbf)
Honeywell	Glass Fiber Base Sheet	84	Johns Manville	Glasbase	103
	Vented Base Sheet	85		Dynabase	104
Celotex	Channel Vent GB	95		Ventsulation	109
	Vaporbar GB	92	Siplast	Parabase	101
	Hydrostop	102		Parabase Plus	100
Firestone	MB Base	88	Soprema	Sopra-G	103
GAF	GAFGlas #75	103		Elastophene 180	107
	Stratavent	89		Sopralene 180	115
CertainTeed	Flex-I-Glas Base	106	Tamko	Nail Fast	99
	PolySMS	111		Versa Base	106
Koppers	Glass Fiber Base	108	Tremco	BURmastic Glass Ply	114
	Organic Base	94		BURmastic Composite Ply	114
Malarkey	#501	110	U.S. Intec	Ultra Base	95.0
	#602	107		Flex Base	111
	#603	114		Modified Base	111
	#605	109		Permavent	117
Nord	NBS G-2 Base	102	W.P. Hickman	Multi Ply	112
	Nordstar Base	110		Performance Ply	113
				Pika Ply SS-2	116

Base Sheet Rupture Performance, TAS 117(B): FM-260 and FM-260V					
<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbf)</u>	<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbf)</u>
Black Warrior	Modified Arrowbase	91.15	Siplast	Irex 30	77.65
CertainTeed	Flexiglas FR Base	121.6	Soprema	Elastophene 180 Sanded	159.3
	PolySMS Base	99.3		Soprafix	93.35
	UltraPolySMS Base	116.25		Soprabase	60.9
Firestone	APP160	114.62	Tamko	Versa Base	50.8
	SBS Base Sheet	95	Tremco	BURmastic Composite Ply	78.85
	SBS Glass Torch	98.8	US Intec	Flex Base 60	92.95
	SBS Poly Torch	160.6		Modified Base 190P	101.95
	SBS PolyBase	149.25	US Ply	DuraFlex 30 SBS Base	95.25
	SBS Premium Base	123.7		DuraFlex SBS PolyBase	110.9
	SBS Smooth	125.95	W.P. Hickman	Multi-Ply Glass CL	92.35
GAF MC	GAFGlass #80 Ultima	97.2		Performance Ply	132.3
Garland	Tribase	92.3		Pika Ply HI-TEC 60	151.15
P.R.S.	Derbibase	71.2		Pika Ply HI-TEC 60 Type II	205.4
Polyglass	Elastobase V	69.2			
	Polyprotector UDL	50.95			

Base Sheet Rupture Performance, TAS 117(B): 2.7" Head					
Twin Loc-Nail					
<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbs.)</u>	<u>Manuf.</u>	<u>Base Sheet</u>	<u>Rupture Value (lbs.)</u>
Honeywell	Black Armor base Sheet	109	Johns Manville	Dynabase	151
Bitec	Beta Base	120	Johns Manville	Vestulation	114
CertainTeed	Glasbase	90	Johns Manville	Perma Ply-28	138
CertainTeed	Flex-I-Glas Base	120	Siplast	Parabase	109
CertainTeed	Flex-I-Glas All Weather Empire Base	125	Siplast	Parabase Plus	140
Firestone	MB Base	128	Soprema	Sopra-G	123
GAF	GAFGLAS Stratavent	119	Soprema	Modified Sopra-G	103
GAF	GAFGLAS Stratavent perforated	97	Tamko	Glass-Base	117
GAF	GAFGLAS #75	117	Tamko	Vapor-Chan	158
WP Hickman	Multiply glass	133	Tamko	Base-N-Ply	103
WP Hickman	Multiply glass CL	191			

APPROVED APPLICATIONS:

Trade Name: FM-260 Series Base Sheet Fastener

Deck: Approved minimum 200-psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Trade Name: FM-275 Series Base Sheet Fastener

Deck: Approved NVS lightweight concrete, various poured gypsums, and existing gypsum. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: FM-290 Series Base Sheet Fastener

Deck: Approved minimum 200-psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: FM-75 Series Assembled Base Sheet Fastener

Deck: Approved NVS lightweight concrete, various poured gypsums, existing gypsum. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Compatible Plate(s): N/A

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: FM-90 Assembled Base Sheet Fastener

Deck: Approved minimum 200-psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Compatible Plate(s): N/A

Application: FM-90 Base Ply Fastener is an approved and acceptable alternate to the Olympic Assembled CR 1.7" Base Sheet Fastener. FM-90 Base Ply Fasteners may be used in any approved Roof Assembly NOA where the Olympic Assembled CR 1.7" Base Sheet Fastener is referenced. Approved fastening patterns and densities listed in any approved Roof Assembly NOA containing the Olympic Assembled CR 1.7" Base Sheet Fastener shall be acceptable when using FM-90 Base Ply Fasteners.

Trade Name: Insuldeck Loc-Nail Assembled Base Sheet Fastener
Deck: Cementitious Wood Fiber.
Compatible Plate(s): N/A
Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: Twin Loc-Nail Assembled Base Sheet/Insulation Fastener
Deck: New or sound existing Cementitious Wood Fiber, Poured Gypsum, Lightweight Concrete.
Compatible Plate(s): N/A
Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: Twin Loc-Nail (no plate) Base Sheet Fastener
Deck: New or sound existing Cementitious Wood Fiber, Poured Gypsum, Lightweight Concrete.
Compatible Plate(s): Straight Line Batten Bar.
Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and approved attachment patterns.

Trade Name: Do-All Loc-Nail
Deck: Gypsum Board, Gypsum Plank, Plywood, Wood, and Composite Decks.
Compatible Plate(s): Tin Tab with .235" central hole.
Application: Shingle attachment (no plate), Base sheet/underlayment attachment (with plate).

Trade Name: Straight Line, Low Pro, Deep Well Batten Bars
Deck: Lightweight Insulating Concrete, Cementitious Wood Fiber, Gypsum, Gypsum Board, Gypsum Plank, Plywood, Wood, and Composite Decks.
Insulation Types: Polyisocyanurate, Perlite, Fiberglass, Gypsum Board, High Density Wood Fiber, Composite.
Compatible Plate(s): N/A
Application: Mechanical attachment of membrane

Trade Name: Seam Plate
Deck: Lightweight Insulating Concrete, Cementitious Wood Fiber, Gypsum, Gypsum Board, Gypsum Plank, Plywood, Wood, and Composite Decks.
Insulation Types: Polyisocyanurate, Perlite, Fiberglass, Gypsum Board, High Density Wood Fiber, Composite.
Compatible Plate(s): N/A
Application: Preliminary attachment only, not to be used in wind calculations.



GENERAL LIMITATIONS:

1. Refer to Assembly Notices of Acceptance for use, density and attachment patterns.
2. Fasteners shall be installed in accordance with manufacturer's published installation instructions.
3. Care shall be taken not to puncture or tear the base sheet or insulation facer during fastener installation. Application recommendations are noted in Roofing Application Standard RAS 117.
4. ES Product's fasteners are a component part of a Miami-Dade Approved Roof Assembly. These products are approved for use only with those roof assemblies listing these products as an approved component. Refer to an approved Roof Assemblies Notices of Acceptance for use, density and attachment patterns.
5. Any modifications to this Notice of Acceptance shall void such approval.
6. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.
7. All approved products listed herein shall be labeled and shall bear the imprint or identifiable marking of the manufacturer's name or logo and following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



END OF THIS ACCEPTANCE

